

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
CORPUS CHRISTI DIVISION**

TWO-WAY MEDIA LLC,	§	
Plaintiff,	§	
v.	§	CIVIL ACTION NO. C-04-089
AMERICA ONLINE, INC.,	§	
Defendant.	§	

**OPINION AND ORDER**

This is a patent infringement case. Plaintiff Two-Way Media (TWM) alleges that defendant America Online (AOL) infringed on three of its patents issued by the U.S. Patent and Trademark Office in violation of the Patent Act, 35 U.S.C. § 271. TWM’s three patents are U.S. Patent numbers 5,778,187 (the ‘187 Patent), 5,983,005 (the ‘005 Patent), and 6,434,622 (the ‘622 Patent). TWM’s patents claim various methods and systems for sending and monitoring streams of digital audio and video information over computer networks, such as the Internet. A patent infringement case “involves two steps: [1] the proper construction of the asserted claims and [2] a determination as to whether the accused method or product infringes the asserted claims as properly construed.” *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The Court is responsible for deciding the first step—claim construction.

Under *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), the Court construes the scope and meaning of disputed claim terms as a matter of law and to aid in its task has held a Markman hearing. After delineating the governing legal tenets, the Court will construe each of the parties’ 15 disputed claims. (*See* D.E. 73, Parties’ Joint Chart of Proposed Claim Constructions).

A. Markman—Legal Framework

The scope of a patent is determined by the claims that appear at the end of the patent document. 35 U.S.C. § 112 (2002); *accord Burke, Inc. v. Bruno Independent Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1990). Whether a claim is given a full or narrow definition dictates the patent’s coverage. Thus, in patent litigation, “the name of the game is the claim.” Giles S. Rich, *The Extent of the Protection of and Interpretation of Claims—American Perspectives*, 21 INTERNATIONAL REV. INDUS. PROP. COPYRIGHT. L. 497, 499 (1990).

Patents are presumed written for persons skilled in the field of invention. *E.g., Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc). For that reason, the proper construction of a disputed claim requires the term be interpreted as it would by a person of ordinary skill in the art at the time of the invention. *Innova/Pure Water, Inc. v. Safari Water Filtration Sys. Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004).

Several sources guide this hypothetical person of ordinary skill in the art. “Those sources include ‘the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.’” *Phillips*, 415 F.3d at 1314 (quoting *Innova*, 381 F.3d at 1116). The Court of Appeals for the Federal Circuit has consistently cautioned district courts that they must begin their claim-interpretation inquiries with intrinsic evidence: (1) the claims themselves; (2) the specification; and (3) the prosecution history, if in evidence. *See, e.g., Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001). Intrinsic evidence is highly probative because “[it] is the most significant source of the legally operative meaning of disputed claims

language.” *Vitronics*, 90 F.3d at 1582.

Within the realm of intrinsic sources, the Federal Circuit explicitly requires district courts to “begin by look[ing] to the words of the claims themselves.” *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 805 (Fed. Cir. 2007) (emphasis added) (quoting *Phillips*, 415 F.3d at 1314); *see Vitronics*, 90 F.3d at 1582; *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 326 F.3d 1215, 1219 (Fed. Cir. 2003) (“We begin our claims construction analysis with the words of the claim.”); *see also Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998) (“[T]he claim construction inquiry . . . begins and ends in all cases with the actual words of the claims.”). Therefore, for each disputed claim term, the Court begins by examining the entire claim language.

After examining the claims themselves, the Court examines the specification because the specification is always “highly relevant” to the claim construction analysis. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). If the Court’s analysis of the claim language itself is not enough, examining the specification should be “dispositive; it is the single best guide to the meaning of a disputed term.” *Id.* Plainly, the Federal Circuit believes that the claims themselves or the specification will usually reveal the claims’ proper construction. Finally, courts are to rely on the common meaning of words: “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction will only” involve the application of commonly accepted words. *See Brown v. 3M*, 265 F.3d 1349, 1352 (Fed. Cir. 2001); *cf. U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“[Claim construction] is not an obligatory exercise in redundancy.”).

Following the Federal Circuit’s guidance, this Court’s begins with a focus on an examination of the claims and the specification. If uncertainty remains, the Court look to extrinsic evidence.

B. Disputed Claims

1. “AUDIO AND/OR VISUAL SELECTION”

AOL: “An individual work such as a song or a music video.”

TWM: No construction required. In the alternative, “Audio and/or visual content of a stream made available to user(s).”

AOL argues that its definition is “consistent with the ordinary meaning of a ‘selection’ as a ‘work.’” (D.E. 68, pg. 6). TWM counters that “nothing in the claim language limits ‘selection’ to an individual song.” (D.E. 69, pg. 7). As described above, the Court is mandated to first examine the claim language and specification.

AOL’s proposal is inconsistent with the claim language. The claim language does not intimate that a “selection” consists of a whole “individual” work, as AOL suggests. Instead, the disputed term is preceded by the following: “wherein at least one stream of [p]ackets comprises an audio and/or visual selection.” (emphasis added). The claim itself reveals that merely a packet of information, which as recalled from both parties’ DVD tutorials, is a digitized part of an audio selection—not the whole selection—constitutes a selection. A stream of packets is short segments of a song. Because those segments are not the entire “individual” song, AOL’s proposal does not comport with the claim language.

The Court believes a construction is necessary because the ordinary skilled person in the art understands “selection” differently than laypersons. Specifically, laypersons would read “selection” as an individual work; skilled persons in the field would read “selection” as either an individual work or a selection of data. To prevent any confusion, the Court adopts TWM’s second proposal. So “selection” is construed as “audio and/or visual content of a stream made available to user(s).”

2. “COMPRESSION ALGORITHM THAT IS SELECTED IN ACCORDANCE WITH THE CONTENT OF THE INFORMATION”

AOL: “A compression algorithm chosen from among a group of algorithms depending upon whether the content of information is audio or video.”

TWM: No construction required.

In the alternative, “A compression algorithm that is chosen based on the nature of the stream.”

A “compression algorithm” is the particular technique that is used to reduce the size of the computer data. AOL’s contention boils down to arguing that the compression algorithm must be based on whether the information is “audio” or “visual.” (D.E. 68, pg. 24). TWM states that its specification refers to servers selecting an optimum compression algorithm depending on the “nature of the audio stream to be compressed.” (D.E. 69, pg. 25). TWM’s specification does not refer to visual data. Therefore, there is no genuine dispute for this claim: AOL argues that the claim specifies whether the content is audio or visual, and TWM states that the content is always audio. Because there is no dispute, the Court rules there is no reason to construe this claim.

3. “CONTROLLING THE ROUTING OF THE STREAM OF PACKETS”

AOL: “Directing the specific path (selected from multiple paths) taken by a stream of packets. Is not mere transmission of a stream from point A to B.”

TWM: “Influencing at least a portion of the routing path, selected from among possible multiple paths, taken by the stream of packets.”

The question here is how much control is meant by the word “controlling.” TWM argues that “controlling” the routing simply means fixing an intermediate point through which a data stream must pass—hence, “influencing” the routing. (D.E. 69, pg. 11). AOL’s position is that using the word “influencing” as a substitute for the word “controlling” would allow TWM to broaden the claim’s scope. (D.E. 68, pgs. 3–4).

A layperson probably would associate “control” with “directing” as opposed to “influencing.” Influencing is not strong enough to capture the force of “controlling.” However, the Court is mandated to act as an ordinary skilled person in the field. With that in mind, a study of the claim language and the specification reveals that TWM’s argument is persuasive.

Specifically, the remainder of the claim states, “controlling the routing . . . in response to selection signals received from the users.” An ordinary person in the computer networking field would know that a user cannot dictate the route on which packets travel on the Internet. Instead, a user can merely mandate that a packet go through a particular intermediate server. For example, if a user in Texas starts downloading music from a company’s main server in New York, he has affected the travel of packets because the New York server will send information to an intermediate server in, for example, Oklahoma—not an intermediate server in, for example, Oregon. All the user has done is require the packet to go through Oklahoma; he has no control of how the packet travels from New York to Oklahoma or from Oklahoma to Texas. The packets may zig-zag up and down the East Coast before heading to Oklahoma—the user cannot control initial zig-zag travel.

Not only does the claim language buttress TWM's argument, but the specification aids as well. Specifically, the preferred embodiment (which is contained in the specification) describes the controlling-the-routing process in the same manner as described above. The specification states that users only affect packet routes by directing them to intermediates—they do not control the entire path the packets take to or from the intermediate servers.

AOL also argues that, because TWM disclaimed the proposal it now espouses at the PTO hearings, it can no longer argue it during litigation. AOL’s recitation of law is correct. Essentially, once a party concedes a definition at the prosecution hearing it can not revive it during litigation.

*See, e.g., Jonsson v. The Stanley Works*, 903 F.3d 812, 817–18 (Fed. Cir. 1990). However, the statement that AOL identifies does not manifest any contradiction by TWM. TWM’s PTO statement—“it is clear that the mere act of transmitting a stream so that it goes from point A to point B does not qualify as ‘controlling’ the ‘routing’”—is not inconsistent with its argument here. TWM’s statement is a self-evident; of course the Internet’s transmittal of packets from A to B does not qualify as controlling the routing. That statement does not address the issue of whether users’ ability to route packets through intermediate servers constitutes control or influence of those servers.

TWM’s use of the word “influencing” is not strong enough to express how powerful a user’s selection is in shaping the paths’ travel. The Court read the following construction of the “controlling the routing of the stream of packets” claim limitation from the bench at the July 19, 2007 hearing:

“directing a portion of the routing path selected from among the possible routing paths [taken by the stream of packets] to one or more intermediate computers located in specific geographic areas.”

Having reviewed the parties’ summary judgment motions and subsequently re-reviewed the parties’ Markman submissions and the Markman hearing transcript, however, the Court has determined that the above construction needs revision. *See Pfizer, Inc. v. Teva Pharms.USA, Inc.*, 429 F.3d 1364, 1377 (Fed. Cir. 2005) (“We . . . recognize that ‘district courts may engage in rolling claim construction, in which the court revisits and alters its interpretation of the claim terms as its understanding of the technology evolves.’”) (quoting *Jack Guttman, Inc. v. Kopykake Enters., Inc.*, 302 F.3d 1352, 1361 (Fed. Cir. 2002)). Based on its review of the aforementioned materials, as well as additional review of the ‘187 and ‘005 Patent specification and claims, the Court proposes the following construction:

“directing a portion of the routing path taken by the stream of packets from one of a group of intermediate computers located in a specific geographic area to the user”

The Court invites both parties to submit objections and/or proposed alterations to this construction no later than Wednesday, August 15, 2007, at 5:00 PM. The objections and/or proposed alterations shall not exceed five pages in length.

4. “CONTROLLING THE ROUTING OF THE STREAM OF INFORMATION”

AOL: “Directing the specific path (selected from multiple paths) taken by a stream of information. Is not mere transmission of a stream from point A to point B.”

TWM: “Influencing at least a portion of the routing path, selected from among possible multiple paths, taken by a stream of information.”

The parties agree that this term should be construed consistently with the prior term. (*See* D.E. 68, pg. 5). Accordingly, for the reasons explicated above, the Court construes this claim in the same manner it construed the prior term and substitutes the word “information” for “packets.”

5. “DETERMINING THE TOTAL DELIVERY TIME . . . TO THE USER”

AOL: “Determining the time between the start and end of receipt by the user.”

TWM: No construction required.

In the alternative, “Determining the time between the start of transmission and the end of transmission to the user.”

The parties agree that the sole dispute is over the meaning of the word “delivery.” The Court must decide if it means “receipt” or “transmission.” AOL argues that “delivery” means “receipt”; TWM argues that “delivery” means “transmission.” (*See* D.E. 68, pg. 9).

AOL states that the claim and specification are equivocal and thus, the Court should examine the prosecution history. TWM argues that an examination of the specification impels the Court to side with its definition. As noted above, claims are decided based on the language of the claims and



the specification. *See, e.g., Vitronics*, 90 F.3d at 1582. The reason the Federal Circuit is loath to give deference to prosecution history is because the prosecution history represents an “ongoing negotiation between the PTO and the applicant . . . it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Phillips*, 415 F.3d at 1317.

Here, the customary definition of “delivery” is the carrying and turning over of goods to a particular recipient or the act of conveying. THE AMERICAN HERITAGE DICTIONARY 378 (2d College ed. 1982). TWM argues it uses the word “delivery” in the same manner, although in the context of computer networking. An inspection of the claim language and the specification reveals that TWM is correct. Specifically, it states: “In the preferred embodiment, the information being delivered is high-quality audio.” (D.E. 1, Exh. A, col. 2). The specification later states that users will be “receiving the information being delivered” by the computer network. *Id.* Substituting the word “receipt” in place of “delivered” in the specification would render the sentences incoherent.

The Federal Circuit has cautioned that constructions that would exclude coverage of the preferred embodiment are “rarely, if ever, correct.” *Vitronics*, 90 F.3d at 1583. AOL’s argument, that delivery means receipt, would exclude the preferred embodiment and thus violate of this rule.

Because an ordinary skilled person in the computer networking field would understand “delivery” as the carrying and turning over of data, the Court rules that no construction is required on this disputed term.

#### 6. “DURING DELIVERY OF THE REAL-TIME INFORMATION”

AOL: “While real-time information is being received by the user”

TWM: No construction required.

In the alternative, “While real-time information is being transmitted.”

The parties agree that this term should be construed consistently with the prior term. (D.E. 68, pg. 23). For the reasons detailed in the “determining the total delivery time” section, the Court does not construe this claim.

7. “GENERATING DELIVERY-COMMENCEMENT INDICATIONS OF REAL-TIME INFORMATION [FORWARDED] TO THE USER”

AOL: “Creating data indicating the start of receipt of real-time information by the user.”

TWM: No construction required.

In the alternative, “Generating data signifying the start of transmission of real-time information sent to the user.”

The parties agree that this term should be construed consistently with the prior term. (D.E. 68, pg. 23). For the reasons detailed in the “determining the total delivery time” section, the Court does not construe this claim.

8. “GENERATING DELIVERY-TERMINATION INDICATIONS OF THE REAL-TIME INFORMATION [FORWARDED] TO THE USER”

AOL: “Creating data indicating the end of receipt of real-time information by the user.”

TWM: No construction required.

In the alternative, “Generating data signifying the end of transmission of real-time information sent to the user.”

The parties agree that this term should be construed consistently with the prior term. (D.E. 68, pg. 23). For the reasons detailed in the “determining the total delivery time” section, the Court does not construe this claim.

9. “MONITORING THE RECEPTION OF THE PACKETS BY THE USERS AND ACCUMULATING RECORDS THAT INDICATE WHICH STREAMS WERE RECEIVED BY WHICH USERS”

AOL: “Recording data about packets actually received by the users and collecting data regarding which streams of packets were actually received by which users, all independent of data about packets transmitted to users.”

TWM: No construction required.

In the alternative, “Checking or observing whether the users are receiving the packets” “and gathering information that indicates which streams of packets were received by which users.”

AOL focuses its entire argument on what TWM “told the PTO” during the patent prosecution.(D.E. 68, pg. 9). Again, the Court begins its analysis with the other aspects of intrinsic evidence. The preferred embodiment monitors a user’s reception of a stream using a PING message. (D.E. 1, Exh. A, col. 14). The Media Server generates a PING message and sends it to the user’s computer. Upon receipt, the user’s computer sends a return message, indicating to the server that it is still receiving and processing the transmitted information. (*Id.* at col. 9). This description is stated in the preferred embodiment. AOL simply sidesteps the specification. Based on the specification, there is no justification for AOL’s proposal. For example, the specification does not even intimate that the monitoring be “independent” of transmission, as AOL suggests. Indeed, TWM asserts the preferred embodiment states that the monitoring is not independent of transmission because the monitoring occurs on the transmission-side of the network. AOL does not support its contention with reference to the claims or specification. Because an ordinary skilled person would understand the monitoring process clearly based on TWM’s specification, no construction is necessary.

10. “MONITORING THE RECEPTION OF THE STREAM OF INFORMATION BY THE USERS AND ACCUMULATING RECORDS RELATING TO THE RECEPTION OF THE STREAM OF INFORMATION BY THE USERS”

AOL: “Recording data about the streams of information actually received by the users and collecting data relating to the reception of the stream of information by the users, all independent of data about the stream of information transmitted to the user”

TWM: No construction required.

In the alternative, “Checking or observing whether the users are receiving the stream of information and gathering information relating to the reception of the stream of information by the users.”

The parties agree that this term should be constructed in alignment with the previous term’s construction. (D.E. 68, pg. 12). As such, no construction is necessary.

11. “ROUTING SUCH STREAM TO ONE OR MORE USERS”

AOL: “Sending the stream over a network path to one or more users.”

TWM: No construction required.

In the alternative, “Sending the stream over the communications network to one or more users.”

AOL contends that the ordinary meaning of “routing,” a term of art in communications networking, is “the process of selecting the correct path for a message.” TWM counters that AOL’s definition requires that every packet in a stream follow the same path from origin to destination. According to TWM, this would exclude the preferred embodiment, and is, in fact, inconsistent with how the Internet works.

As the Court recalls from AOL’s own tutorial, routers act as “interchanges” or “on/off ramps” on the highway, and, a “stream” consists of packets. AOL’s proposal, then, seems to require all the packets in a stream to move through the same path from the server to the user. This definition

violates bedrock computer networking principles that each individual packet ultimately follows one particular path and that all the packets of a stream need not follow the same path. *See* KUKROSE & ROSE, *COMPUTER NETWORKING* 313 (2005). An ordinary skilled person would have this understanding of computer networking. With that understanding, the disputed language in the claim needs no construction.

12. “SELECTION SIGNALS RECEIVED FROM THE USERS”

AOL: “Signals from users indicating their choice of channel[s]”

TWM: No construction required.

In the alternative, “Signals from users selecting a stream.”

TWM contends that the selection signals select a stream. (D.E. 69, pgs. 6–7). Conversely, AOL argues that the selection signals indicate the user’s choice of a channel. (D.E., pg. 22).

The pertinent claim language recites “controlling the routing of the stream of packets in response to selection signals received from the users.” Obviously, the contested portion is the tail-end of the sentence. Again, an inspection of the claim itself reveals that TWM’s interpretation of the contested language is correct. Specifically, the term “channel” does not appear at all in any claim of the ‘187 patent. In contrast, “stream” appears throughout the claims. Injecting the word “channel” into the claim now would not comport with the claim’s language. The Court adopts TWM’s alternative proposal.

13. “STREAM(S) OF ADDRESSED DIGITAL PACKETS”

AOL: “Continuous sequence of self-contained bundles of digital data, each including a destination address”

TWM: No construction required.

In the alternative, “A continuous sequence of bundles of digital data, including destination address information.”

At the hearing, the parties agreed that the Court should adopt AOL's proposed construction with two alterations. Thus, the Court construes this claim as follows: "Continuous sequence of bundles of digital data, including a destination address."

14. "VERIFY THE OPERATIONAL STATUS OF THE COMPUTER"

AOL: "During receipt of real-time information confirming that the user's computer is functioning properly based on test signals unrelated to the real-time information."

TWM: "Determine whether the computer is functioning."

The parties agree that this term should be constructed in alignment with the next term's construction. Therefore, for reasons described in the Court's analysis of disputed claim 15, the Court adopts TWM's proposed construction.

15. "VERIFYING THE OPERATIONAL STATUS OF THE USER'S ACCESS TO THE COMMUNICATIONS NETWORK DURING DELIVERY OF THE REAL-TIME INFORMATION"

AOL: "During receipt of real-time information, confirming the user's connection to the network is functioning properly, based on test signals unrelated to the real-time information."


TWM: "Determining whether the user's connection to the communications network is functioning while real-time information is being transmitted."

AOL argues that the "operational status" means "properly functioning." (D.E. 68, pgs. 16–17). TWM counters that operation status means "functioning," and that including "properly" would be superfluous. (D.E. 69, pg. 22). The question, then, is whether the word "properly" to modify "functioning" is necessary. AOL buttresses its argument by pointing to specification

language describing “operational status” as “working and active.” TWM points to specification language describing “operational language” as “up and running.” Both arguments have merit. Describing a system as “working and active” does intimate that the system is properly functioning. And describing “up and running” does suggest that the system is merely functioning, whether or not in the proper manner. Whether to add “properly” to modify “functioning” would be a close call.

However, this term has not one, but two, disputes at issue. Specifically, the second dispute is whether the verification PING signals is based on “real-time” connections. AOL argues that the specification requires sending Pings over a separate network connection unrelated to the delivery of real-time information, e.g., the song being streamed. An inspection of the specification reveals, in contrast, that the preferred embodiment uses the TCP/IP and Ping methods for communications between the media server and the user. The preferred embodiment continues that when the media server receives a valid “play” command, it initiates real-time audio delivery to the user. The user in turn sends notification to the media server that information has been received through the TCP network, which remains open during the audio play operation, or through the UDP port. Therefore, the pings might be sent via the UDP port or the TCP network. Because the pings could travel on either, and the TCP network provides real-time information, AOL’s suggestion that the specification requires verification “unrelated to the real-time information” is incorrect. The Court adopts TWM’s proposal.

Ordered this 8 day of August, 2007.

  
HAYDEN HEAD  
CHIEF JUDGE